

### **REMARKS**

This is a full and timely response to the outstanding non-final Office Action mailed October 1, 2007. In the present response, claims 1, 11, 13, 14, and 19 have been amended. Claim 21 has been newly added and does not introduce new matter. In addition, claims 1-21 remain pending in the present application.

In the Office Action, pending claims 1-4, 6-9, 11-15 and 17-20 have been rejected. In addition, claims 5, 10 and 16 have been objected to.

While the following addresses each of the abovementioned rejections in detail, it is beneficial to first provide a brief summary of the main reference utilized in the preliminary rejection, namely, US Patent No. 6,836,551 to Kuze, et al. (hereafter, "Kuze")

### **KUZE**

Kuze teaches a conventional loudspeaker in which a stationary actuator part (1, 2, 3) is NOT located above the diaphragm (8), as is illustrated by FIG. 2 of Kuze. Kuze contains a plurality of support members (5A) interposed between a voice coil bobbin (13) and a diaphragm (8). This arrangement prevents the diaphragm (8) from contacting the magnetic yoke (3) so as to enable the height of the loudspeaker to be reduced (col. 9, lines 14-18).

The teachings of Kuze could not apply to an inverted loudspeaker since the presence of the support members (5A) would have the effect of increasing the height of an inverted loudspeaker. Mounting the stationary actuator (1, 2, 3) above the diaphragm (8) would be in direct conflict with the fundamental teaching of Kuze, which is to reduce the height of the loudspeaker using the support members (5A).

**I. CLAIM OBJECTIONS**

In the Office Action, pending claims 5, 10 and 16 have been objected to. With the current amendments, as provided below, the Applicant respectfully submits that claims 5, 10, and 16 are allowable. Allowance of claims 5, 10, and 16 is respectfully requested.

**II. CLAIM REJECTIONS UNDER 35 USC §112**

Claims 13 and 14 have been rejected as allegedly failing to comply with the written description requirement. In response, the Applicant as amended claims 13 and 14. Specifically, the Applicant has changed the term “electromagnet” to “magnetic structure.” Support for the term “magnetic structure” can be found in multiple areas of the pending application specification, including, but not limited to, page 3, lines 6-9. As a result, the Applicant respectfully submits that the modified terminology does not add new matter. Allowance of claims 13 and 14 is respectfully requested.

**III. CLAIM REJECTIONS UNDER 35 USC §102**

In the Office Action, claims 1, 4, 11 and 19 have been preliminarily rejected under 35 U.S.C. §102 as allegedly being anticipated by Kuze. For a proper rejection of a claim under 35 U.S.C. §102(b), the cited reference must disclose all elements/features/steps of the claim. See, *e.g.*, E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co., 849 F.2d 1430, 7 USPQ2d 1129 (Fed. Cir. 1988).

**A. Claim 1**

Amended independent claim 1 reads:

1. An electrodynamic loudspeaker comprising:
  - a chassis,
  - a movable body flexibly connected to the chassis and having a three-dimensional diaphragm with a base part and a top part that is wider than the base part, and
  - an electromagnetic actuator for moving the body with respect to the chassis along a translation axis, which actuator includes:
    - a stationary actuator part secured to the chassis and located above the diaphragm,** and
    - a translatable actuator part that extends inside a space defined by the diaphragm and is translatable along the translation axis with respect to the stationary actuator part and is connected to the movable body in the region of the base part of the diaphragm,
    - the stationary and translatable actuator parts magnetically co-operating with each other across an air gap,
    - wherein
    - the movable body includes, in the proximity of the base part of the diaphragm,
    - a bridging element that is secured to the movable part of the actuator and extends radially with respect to the translation axis,
    - the diaphragm and the bridging element being interconnected at least at a radial distance to the translatable part of the actuator.

**(Emphasis Added)**

The Applicant respectfully submits that amended independent claim 1 is allowable for at least the reason that Kuze does not disclose all elements of amended independent claim 1. As emphasized above, claim 1 has been amended so as to specify that the stationary part of the electromagnetic actuator is located above the diaphragm. Kuze does not disclose a stationary part of an electromagnetic actuator being located above a diaphragm.

It should be noted that the abovementioned modification to claim 1 is supported by the specification and figures of the presently pending application. As an example, FIG. 1 of the

presently pending application shows the stationary actuator part (6a) located above the diaphragm (8). In addition, page 5, lines 4-7 read:

[T]he actuator 6 essentially comprises two elements, namely a stationary actuator part 6a which is fixed to the chassis 2 and a translatable actuator part 6b which is connected to the translatable body 4 and is situated in or at least mainly in the space 9 enveloped by the contours of the diaphragm 8.

This configuration is contrary to conventional loudspeaker configurations in which the actuator is located below the diaphragm (see, for example, page 1, lines 19-23 of the presently pending application). In other words, the presently pending application provides an inverted loudspeaker having reduced height.

In addition to the abovementioned, the Applicant has amend claim 1 for clarity by changing the text "a translatable actuator part that extends inside a space enveloped by the contours of the diaphragm," to "a translatable actuator part that extends inside a space defined by the diaphragm."

In summary, allowance of amended independent claim 1 is respectfully requested.

#### **B. Claim 4**

Since independent claim 1 is allowable over the prior art of record, its dependent claim 4 is allowable as a matter of law. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). Additionally and notwithstanding the foregoing, this dependent claim recites further features and/or combinations of features (as is apparent by examination of the claim itself) that are patentably distinct from the prior art of record. Hence, there are other reasons why this dependent claim is allowable.

**C. Claim 11**

Independent claim 11 has been amended in a manner similar to the amendment of claim 1 so as to specify that the stationary actuator part is located above the diaphragm. As a result, the response with regard to amended independent claim 1 also pertains to amended independent claim 11 and such response should be referred to herein. Thus, allowance of amended independent claim 11 is respectfully requested.

**D. Claim 19**

Since independent claim 11 is allowable over the prior art of record, its dependent claim 19 is allowable as a matter of law. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). Additionally and notwithstanding the foregoing, this dependent claim recites further features and/or combinations of features (as is apparent by examination of the claim itself) that are patentably distinct from the prior art of record. Hence, there are other reasons why this dependent claim is allowable.

**IV. CLAIM REJECTIONS UNDER 35 USC §103**

In the Office Action, claims 2, 3, 6, 9, 15, 17 and 18 have been preliminarily rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Kuze in view of Borwick's "Loudspeaker and headphone Handbook," third edition 2001, and further in view of U.S. Patent No. 6,327,372 to Devantier et al. (hereafter, "Devantier").

It is well established at law that, for a proper rejection of a claim under 35 U.S.C. §103 as being obvious based upon a combination of references, the cited combination of references must disclose, teach, or suggest, either implicitly or explicitly, all elements/features/steps of the claim

at issue. See, e.g., In re Dow Chemical, 5 U.S.P.Q. 2d 1529, 1531 (Fed. Cir. 1988), and In re Keller, 208 U.S.P.Q. 871, 881 (C.C.P.A. 1981).

**A. Claims 2, 3, 6, 9, 15, 17, and 18**

Since independent claims 1 and 11 are allowable over the prior art of record, their dependent claims 2, 3, 6, 9, 15, 17, and 18 are allowable as a matter of law. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). Neither Borwick, nor Devantier disclose, teach, or suggest having a stationary actuator part located above a diaphragm.

Additionally and notwithstanding the foregoing, these dependent claims recite further features and/or combinations of features (as is apparent by examination of these claims) that are patentably distinct from the prior art of record. Hence, there are other reasons why these dependent claims are allowable.

**V. NEW CLAIM 21**

New independent claim 21 has been added. This independent claim is very similar to amended independent claim 1, however the claim also contains the limitation of the diaphragm having a substantially conical shape and having the stationary actuator part located on an inwardly conical side of the diaphragm. Support for the limitation of the diaphragm having a substantially conical shape is provided within the presently pending application in areas such as, but not limited to, page 4, lines 31-32. In addition, support for the limitation of the stationary actuator part being located on an inwardly conical side of the diaphragm is provided by at least

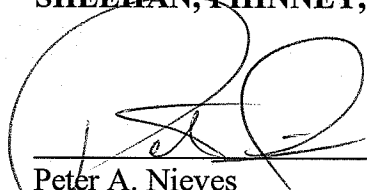
the figures of the pending application. In summary, the Applicant respectfully requests allowance of claim 21.

**CONCLUSION**

In light of the foregoing and for at least the reasons set forth above, the Applicant respectfully requests favorable reconsideration and allowance of the present application and the presently pending claims. If in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (603) 627-8134.

Respectfully submitted,

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